

What is claimed is:

1 1. A method for automated provisioning of computer networks,
2 comprising the steps of:
3 receiving at least one command to be executed on a network device;
4 reading parameters from a network database related to the at least one
5 command;
6 determining whether the at least one command can be properly executed
7 based upon the parameters read; and
8 executing the at least one command only if it is determined that the at least
9 one command can be properly executed.

1 2. The method of claim 1, wherein the at least one command is executed
2 by an agent.

1 3. The method of claim 2, wherein the agent has the highest level of
2 access for the network device.

1 4. The method of claim 1, further comprising the steps of:
2 receiving the message that at least one command is to be executed from a
3 secure provisioning network; and
4 verifying the validity of the message by requesting verification from the
5 secure provisioning network.

1 5. The method of claim 4, wherein the step of verifying is accomplished
2 by way of communicating with a communication gateway of the secure
3 provisioning network.

1 6. The method of claim 1, wherein the step determining is based on
2 reading software packaging parameters.

1 7. The method of claim 6, wherein the software packaging parameters
2 comprise compatibility requirements.

1 8. The method of claim 6, wherein the software packaging parameters
2 comprise software roles.

1 9. The method of claim 7, wherein the compatibility requirements
2 comprise software roles compatibility requirements.

1 10. The method of claim 6, wherein the software packaging parameters
2 comprise operating system (OS) parameters.

1 11. The method of claim 7, wherein the compatibility requirements
2 comprise operating system (OS) compatibility requirements.

1 12. The method of claim 6, wherein the software packaging parameters
2 comprise parameters regarding specific customer account requirements.

1 13. The method of claim 7, wherein the compatibility requirements
2 comprise requirements regarding specific customer account compatibility.

1 14. The method of claim 8, wherein the software roles comprise customer
2 account software roles.

1 15. The method of claim 9, wherein the software roles compatibility
2 requirements comprise customer account software roles compatibility
3 requirements.

1 16. The method of claim 6, wherein the software packaging parameters
2 comprise device parameters.

1 17. The method of claim 16, wherein the device parameters comprise
2 device interface parameters.

1 18. The method of claim 17, wherein the device interface parameters
2 comprise device internet protocol (IP) address parameters.

1 19. The method of claim 17, wherein the interface parameters comprise
2 interface type parameters.

1 20. The method of claim 16, wherein the device parameters comprise
2 interface components parameters.

1 21. The method of claim 16, wherein the device parameters comprise
2 memory components parameters.

1 22. The method of claim 16, wherein the device parameters comprise
2 storage components parameters.

1 23. The method of claim 16, wherein the device parameters comprise
2 central processing unit (CPU) parameters.

1 24. The method of claim 7, wherein the compatibility requirements
2 comprise device compatibility requirements.

1 25. The method of claim 24, wherein the device compatibility
2 requirements comprise interface compatibility requirements.

1 26. The method of claim 25, wherein the interface compatibility
2 requirements comprise IP compatibility requirements.

1 27. The method of claim 25, wherein the interface compatibility
2 requirements comprise interface type compatibility requirements.

1 28. The method of claim 24, wherein the device compatibility
2 requirements comprise interface components compatibility requirements.

1 29. The method of claim 24, wherein the device compatibility
2 requirements comprise memory components compatibility requirements.

1 30. The method of claim 24, wherein the device compatibility
2 requirements comprise storage components compatibility requirements.

1 31. The method of claim 24, wherein the device compatibility
2 requirements comprise central processing unit (CPU) components compatibility
3 requirements.

1 32. The method of claim 8, wherein software roles compatibility
2 requirements comprise device roles compatibility requirements.

1 33. The method of claim 9, wherein the software roles comprise device
2 roles.

1 34. The method of claim 6, wherein the software packaging parameters
2 comprise application packaging parameters.

1 35. The method of claim 7 wherein the compatibility requirements
2 comprise application compatibility requirements.

1 36. The method of claim 8, wherein the software roles comprise
2 application software roles.

1 37. The method of claim 36, wherein the application software roles define
2 a group of services.

1 38. The method of claim 9, wherein the software roles compatibility
2 requirements comprise application roles compatibility requirements.

1 39. The method of claim 38, wherein the application roles compatibility
2 requirements define a group of services.

1 40. The method of claim 6, wherein the software packaging parameters
2 relate to a variety of network service tiers.

1 41. The method of claim 7, wherein the compatibility requirements are
2 defined according to a variety of network service tiers.

1 42. The method of claim 6, wherein the software packaging parameters
2 are defined by way of configuration parameters.

1 43. The method of claim 42, wherein the configuration parameters
2 comprise device configuration parameters.

1 44. The method of claim 42, wherein the configuration parameters
2 comprise interface configuration parameters.

1 45. The method of claim 42, wherein the configuration parameters
2 comprise virtual IP address parameters.

1 46. The method of claim 42, wherein the configuration parameters
2 comprise component type parameters.

1 47. The method of claim 42, wherein the configuration parameters
2 comprise role configuration parameters.

1 48. The method of claim 47, wherein the role configuration parameters
2 comprise device role configuration parameters.

1 49. The method of claim 48, wherein the device role configuration
2 parameters comprise device role history configuration parameters.

1 50. The method of claim 7, wherein the compatibility requirements
2 comprise configuration compatibility requirements.

1 51. The method of claim 50, wherein the configuration compatibility
2 requirements comprise device configuration compatibility requirements.

1 52. The method of claim 50, wherein the configuration compatibility
2 requirements comprise interface configuration compatibility requirements.

1 53. The method of claim 50, wherein the configuration compatibility
2 requirements comprise virtual IP address compatibility requirements.

1 54. The method of claim 50, wherein the configuration compatibility
2 requirements comprise component type configuration compatibility requirements.

1 55. The method of claim 50, wherein the configuration compatibility
2 requirements comprise role configuration compatibility requirements.

1 56. The method of claim 55, wherein the role configuration compatibility
2 requirements comprise device role configuration compatibility requirements.

1 57. The method of claim 56, wherein the device role configuration
2 compatibility requirements comprise device role history configuration
3 compatibility requirements.

1 58. The method of claim 1, wherein the step of executing the at least one
2 command is limited to entities having an approved access level to execute the at
3 least one command.

1 59. The method of claim 58, wherein the access to execute the at least one
2 command is defined in an access control list (ACL).

1 60. The method of claim 58, wherein the access control list ACL is
2 defined by domain name server (DNS) address of the network device.

1 61. The method of claim 58, wherein the entity executing the at least one
2 command comprises an agent.

1 62. The method of claim 61 wherein the access to the agent is limited
2 according to domain name server (DNS) address of the network device.

1 63. The method of claim 9, wherein the software roles compatibility
2 requirements relate to an IP address of the network device.

1 64. The method of claim 9, wherein the software roles compatibility
2 requirements relate to IP address compatibility requirements.